

CLAIMS

1. Method for treatment of sludge, which includes precipitated aluminium and/or iron hydroxide, whereby the
5 sludge first is added acid and thereafter is subjected to at least one membrane filtration process, whereby a permeate or a concentrate is obtained, including trivalent aluminium and/or iron ions in solution, **characterized** in that
10 the aluminium and/or iron ions in the permeate, or concentrate, are crystallised (salting out) in a precipitation.
2. Method according to claim 1, wherein the precipitation is subjected to a product adaptation step (I).
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3. Method according to claim 2, wherein the product adaptation step (I) includes an alkalisation.
- 20 4. Method according to claim 2, wherein an aluminium product from the product adaptation step (I) may be re-used, as a chemical coagulant, direct in a waterworks.
5. Method according to claim 1, wherein the crystallisation occurs by addition of potassium, sodium, and/or
25 ammonium sulphate.
6. Method according to claim 1, wherein the crystallisation is performed at low temperature.
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7. Method according to claim 1, wherein the crystallisation is performed after an adjustment of pH.
8. Method according to claim 7, wherein the pH is
35 adjusted with potassium hydroxide, sodium hydroxide, sodium

carbonate, magnesium hydroxide, magnesium oxide, or magnesium carbonate, separately or in combination.

9. Method according to claim 1, wherein the solution
5 obtained from the crystallisation is used as chemical coagulant in similar industrial processes, such as paper industry or wastewater treatment plants.

10. Construction for treatment of sludge, which has
10 been treated in a sludge treatment construction (B, B*), whereby a permeate, or a concentrate, is obtained, **characterized** by

an alum crystallisation step (C), to which the permeate, or concentrate, is led, and

15 an alum separation step (F), to which a solution (E) is led.

11. Construction for treatment of sludge according to claim 10, **characterized** by

20 a product adaptation step (I), to which a precipitate (H), from the alum separation step (F), is led.